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GENERAL INFORMATION

The primary role of the medical biochemist is to study and measure the biochemical abnormalities in human disease. The medical biochemist is trained in the operation and management of hospital biochemistry laboratories and acts as a consultant in all aspects of their use. As an academic specialist, the medical biochemist develops and integrates a basic medical science research program with clinical practice in a field of biochemical interest and maintains an active role as a teacher of clinically-applied biochemistry.

Technology-driven specialties such as medical biochemistry require the physician to have a broad awareness of the field at the time of completion of formal training. But the physician must also be prepared for major changes during the ensuing years of practice that are inevitable and the residency period is the time to acquire skills for life-long learning.

Source: Pathway evaluation program
GENERAL INFORMATION

In medical biochemistry, role learning must be supplemented by skills in self-directed learning. It requires ability in problem solving, formulation of hypotheses, the ability to do directed information searches and also the ability to critically appraise data.

Medical biochemistry involves pathophysiology (requiring a thorough knowledge of normal and abnormal biochemistry and physiology, and the ability to apply this knowledge to the understanding of human disease); consultation; interpreting results (understanding the principles and limitations of biochemical analyses and applying these concepts to the interpretation of test results); analytical methods; and instrumentation.

Once you have completed medical school, it takes an additional 5 years of Royal College-approved residency training to become certified in medical biochemistry. This residency training must include the following:

Source: Pathway evaluation program
GENERAL INFORMATION

• 1 year of basic clinical training (including rotations in medicine, pediatrics, obstetrics and surgery);

• 2 years of Royal College-approved residency in medical biochemistry, preferably spent in one university centre (at least one of these two years must be spent in the biochemistry laboratory of a general hospital);

• 1 year of residency that may be either in internal medicine or in pediatrics.

For further details on training requirements please go to:

Royal College of Physicians and Surgeons of Canada

Source: Pathway evaluation program
Total number & number/100,000 population by province, 2016

<table>
<thead>
<tr>
<th>Province/Territory</th>
<th>Physicians</th>
<th>Phys/100k pop'n</th>
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</thead>
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<td>Prince Edward Island</td>
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<tr>
<td>New Brunswick</td>
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<td>Territories</td>
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Source: 2016 CMA Masterfile
Number/100,000 population, 1995 to 2016

Source: 2016 CMA Masterfile
Number by gender & year, 1995 to 2016

Source: 2016 CMA Masterfile
Percentage by gender & age, 2016

Gender

- Male: 69%
- Female: 31%

Age Group

- 65+: 22%
- 35 - 44: 19%
- 45 - 54: 21%
- 55 - 64: 36%
- <35: 2%

Source: 2016 CMA Masterfile
Number by gender & age, 2016

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<thead>
<tr>
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<th>Male</th>
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<tr>
<td>65+</td>
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Source: 2016 CMA Masterfile
Number of retirees during the three year period of 2013-2015

Source: CMA Masterfile – year over year comparisons
Note: “Retired” is based on giving up licence and therefore excludes those who have retired from clinical practice but are still licensed; those younger than 45 may include physicians who have temporarily given up their licence but return to practice at a later date.
### Total & Ministry funded postgraduate MD trainees in 2014/15

<table>
<thead>
<tr>
<th>Faculty of Medicine</th>
<th>Ministry funded</th>
<th>Total</th>
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<th>Ministry funded</th>
<th>Total</th>
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</thead>
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<td>NOSM</td>
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<td>U Manitoba</td>
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<td>Canada</td>
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<td>20</td>
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</tbody>
</table>

Source: 2014/15 Annual Census of Post-MD Trainees, CAPER
First year & exiting postgraduate-MD trainees in 2014/15

Source: 2014/15 Annual Census of Post-MD Trainees, CAPER

IMG – International Medical Graduates
GCMS – Graduates of Canadian Medical Schools
Postgraduate-MD trainees in 2014/15

- Total of 1 first year Medical Biochemistry trainees representing 6% of all Medical Biochemistry trainees.
- Total of 16 Medical Biochemistry trainees representing 0.1% of all Ministry funded trainees.
- Total of 3 visa trainees in Medical Biochemistry.
- Total of 6 Medical Biochemistry trainees completed postgraduate training in 2014.

Source: 2014/15 Annual Census of Post-MD Trainees, CAPER
Location of 2013 postgraduate-MD exits in 2015

The 3 exits in 2013 are all known to be practising in Canada

Source: 2014/15 Annual Census of Post-MD Trainees, CAPER
Stress associated with finding employment at end of residency

**FM resident**
- Not stressful: 43%
- Somewhat stressful: 42%
- Very stressful: 8%

**Other spec res**
- Not stressful: 20%
- Somewhat stressful: 50%
- Very stressful: 25%

Source: 2012 National Physician Survey of residents. CFPC, CMA, Royal College
Links to the Organizations Supplying Information for this Document

- National Physician Survey
- Canadian Medical Association
- Association of Faculties of Medicine of Canada
- Royal College of Physicians and Surgeons of Canada
- College of Family Physicians of Canada
- Canadian Institute for Health Information